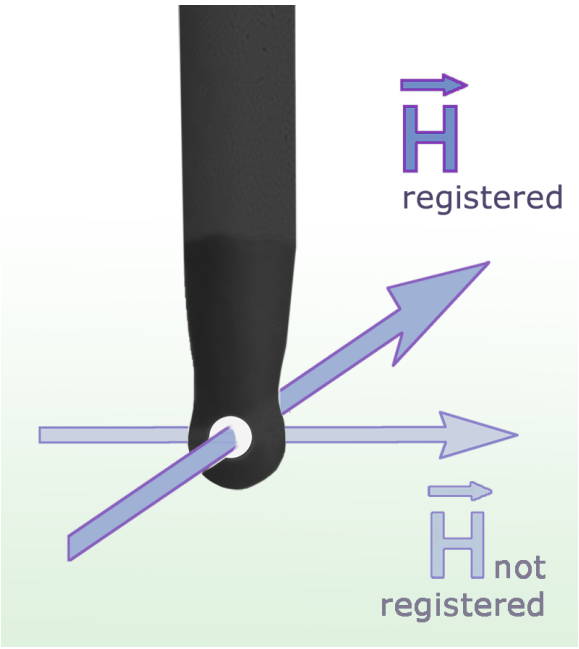
RF-R 3-2

H-Field Probe 30 MHz up to 3 GHz



Short description

The RF-R 3-2 near-field probe is used for the high-resolution measurement of RF magnetic fields directly on an assembly e.g. in range around pins and IC cases, conducting paths, decoupling capacitor and EMC components.

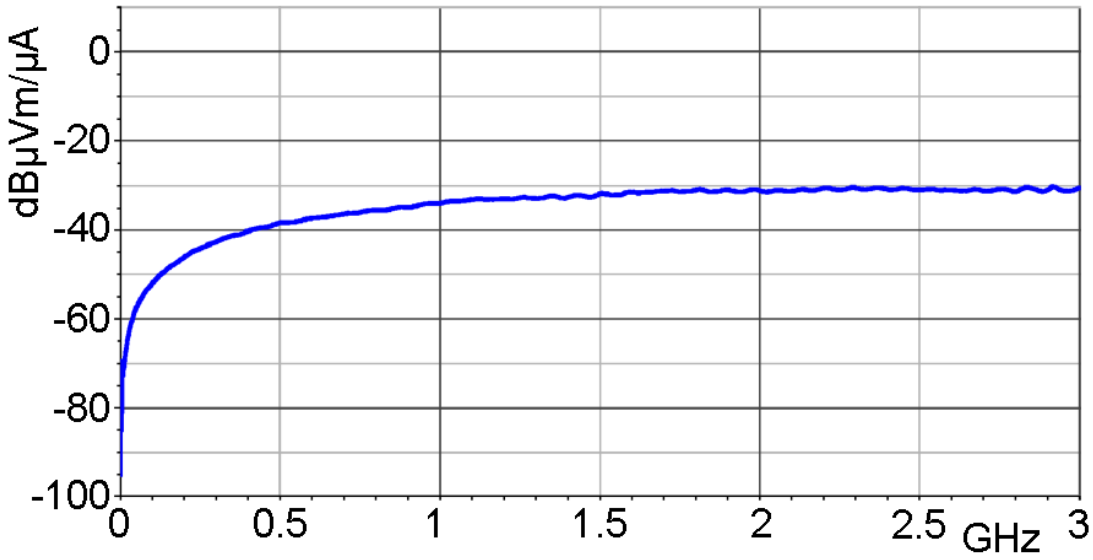
The RF-R 3-2 is a passive near-field probe.
It has the same basic construction as the RF-R 50-1 and RF-R 500-1 probes. However, the resolution of RF-R 3-2 is much higher. The H-field probe is designed to be used very close to the components and where high magnetic field strength occurs. It is not suitable for measurements from great distances, which can be done using the RF-R 400-1 and RF-R 50-1 probes. The near-field probe is small and handy. It has a current attenuating sheath and its upper side is electrically shielded. It can be connected to a spectrum analyzer or an oscilloscope with a 50 Ω input. The H-field probe does not have an internal terminating resistance of 50 Ω.

The near-field probe can be used for RF injection in the context of a surface scan in according to IEC 62132-9. The maximum forward power [dBm] for this application is shown in the diagram below. The curve for the probe factor used to calculate the decoupled fields strength is available from our sales department. Please note that the probe must not be held in the hand during coupling, and the user must ensure appropriate shielding from the surrounding environment. Langer EMV-Technik GmbH assumes no liability for damage to persons or equipment resulting from improper handling during coupling.

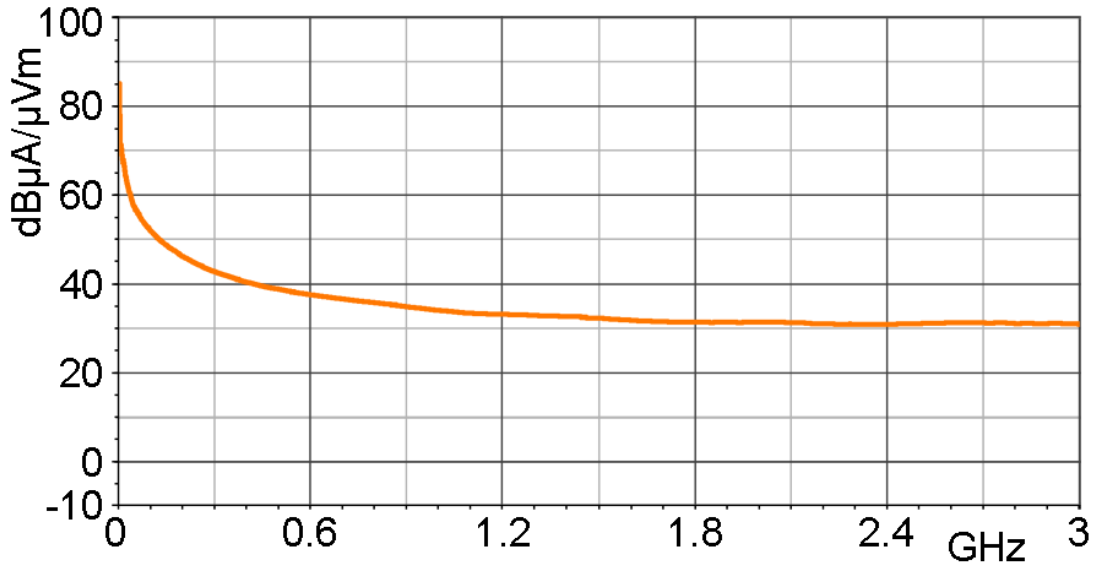
Technical parameters

Frequency range	30 MHz ... 3 GHz
Resolution	≈ 1 mm
Probe head dimensions	Ø ≈ 3 mm
Connector - output	SMB, male, jack
Weight	15 g

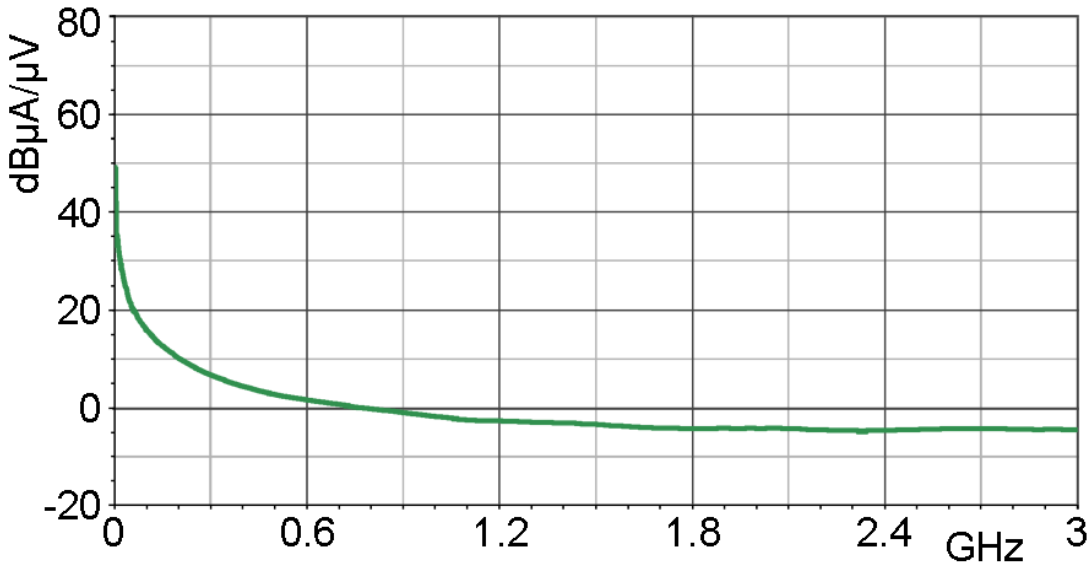
Frequency response [dBµV] / [dBµA/m]



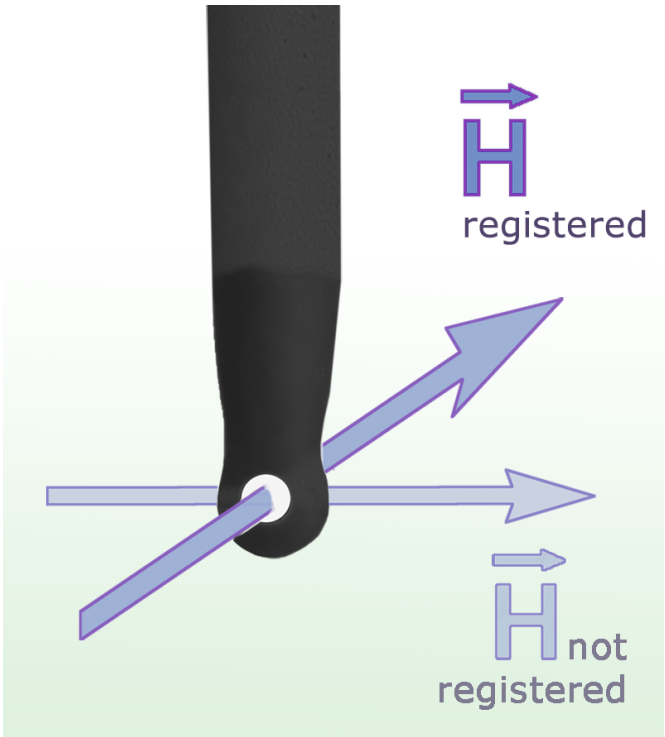
H-field correction curve [dBµA/m] / [dBµV]



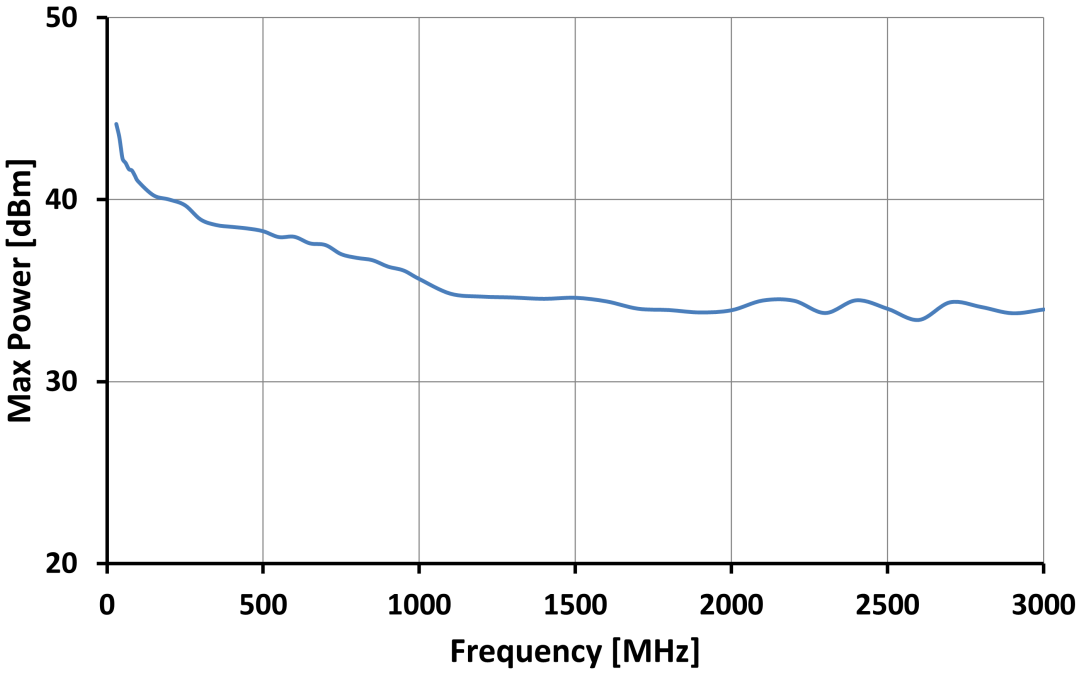
Current correction curve [dBµA] / [dBµV]



Measuring principles



Max. Forward Power [dBm]



Probe head